Currently, ground water quality standards have been proposed in Wisconsin for over 50 substances for which federal standards have previously been established by the EPA or recommended by the National Research Council (NRG, 1977-1983). Standards for other substances will be developed and some previous standards modified as new risk information becomes available. However, the DNR reportedly intends to establish standards that may or may not be consistent with federally determined standards. There is significant concern, therefore, that the federal standards will result in pressure for the state to enforce the less stringent federal standards.

In Wisconsin's two-tiered system, the adopted ground water quality standards become enforcement standards. Enforcement standards define when violations of ground water quality standards have occurred and apply to all state-regulated activities that have an impact on ground water quality. When a substance is detected in ground water in concentrations equal to or greater than its enforcement standard, the source is subject to immediate enforcement action. The appropriate regulatory agency must prohibit continuation of the activity from which the substances came, unless it can be demonstrated that an alternative response will achieve compliance with the enforcement standard.

The preventive action limit (PAL) represents a ground water quality standard that is a lower concentration of the substance than the enforcement standard. PALs are intended to function as warning levels and as standards in facility design. These limits have been established by the state for each of the substances with enforcement standards. For the substances of public health concern (volatile organics and heavy metals, for example), PALs are set at 20 percent of the enforcement standard except where the substance is reported to be carcinogenic, mutagenic, or teratogenic. For these substances, the PAL is set at 10 percent of the enforcement standard. PALs for the public-welfare-related substances (chloride, turbidity, and TDS, for example) are set at 50 percent of their enforcement standards.

These more stringent limits must be used in design standards for facilities (e.g., landfills) and in management practices (e.g., pesticide use regulations) so that contamination up to or greater than the enforcement standard is prevented. Regulatory agencies are required to review their existing design code regulations to assure that they conform to the PALs to the extent technically and economically feasible. The PAL is also intended to serve as a "trigger" for regulatory response. Exceeding a PAL creates the possibility that some regulatory response may be necessary. In that case, the regulatory agency is required by law to evaluate the situation and take action necessary to maintain the concentration of the substances at the PAL or at the lowest concentration technically feasible. The agency may prohibit continuation